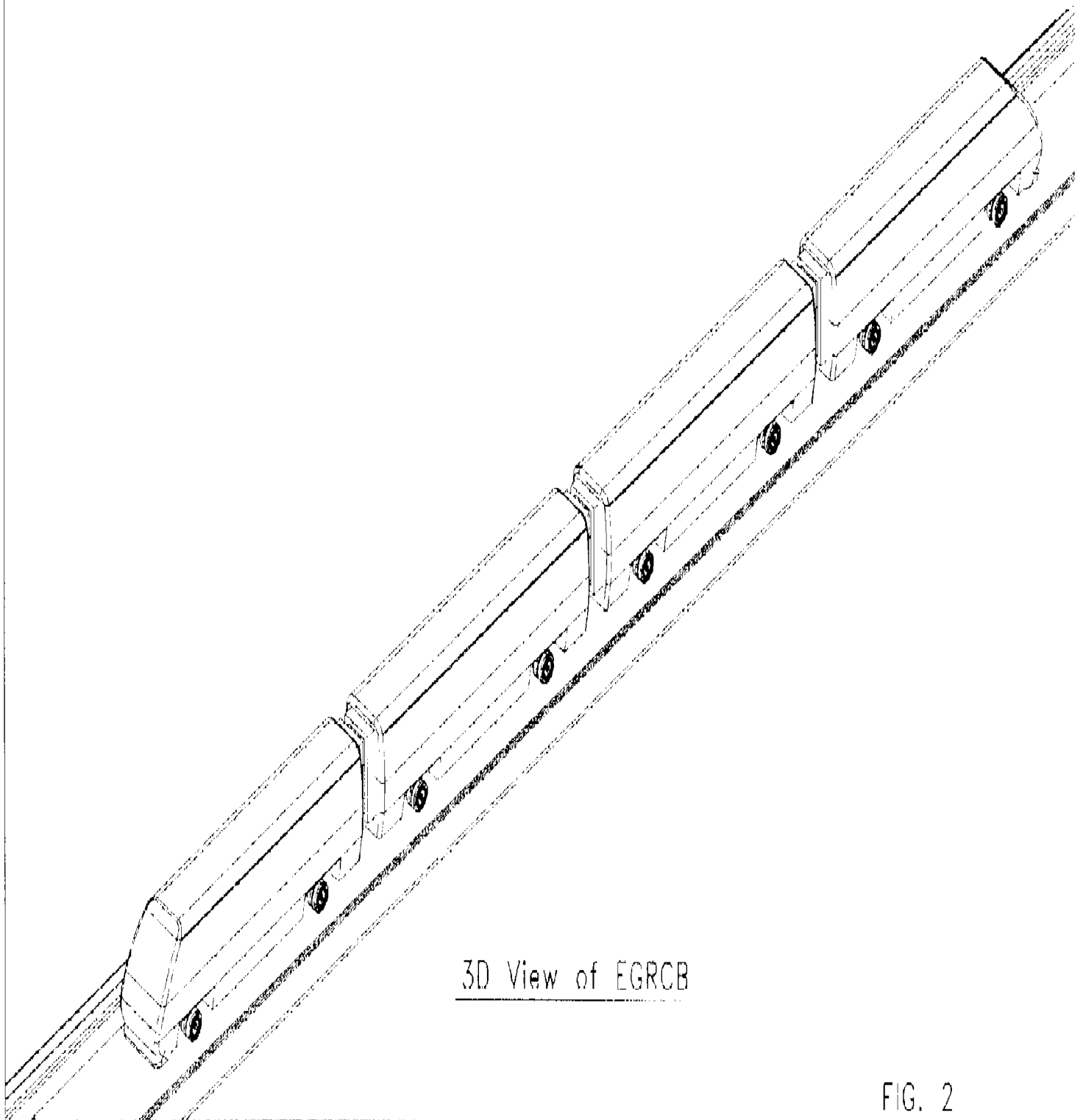


3D View of EGRCB

FIG. 1



3D View of EGRCB

FIG. 2

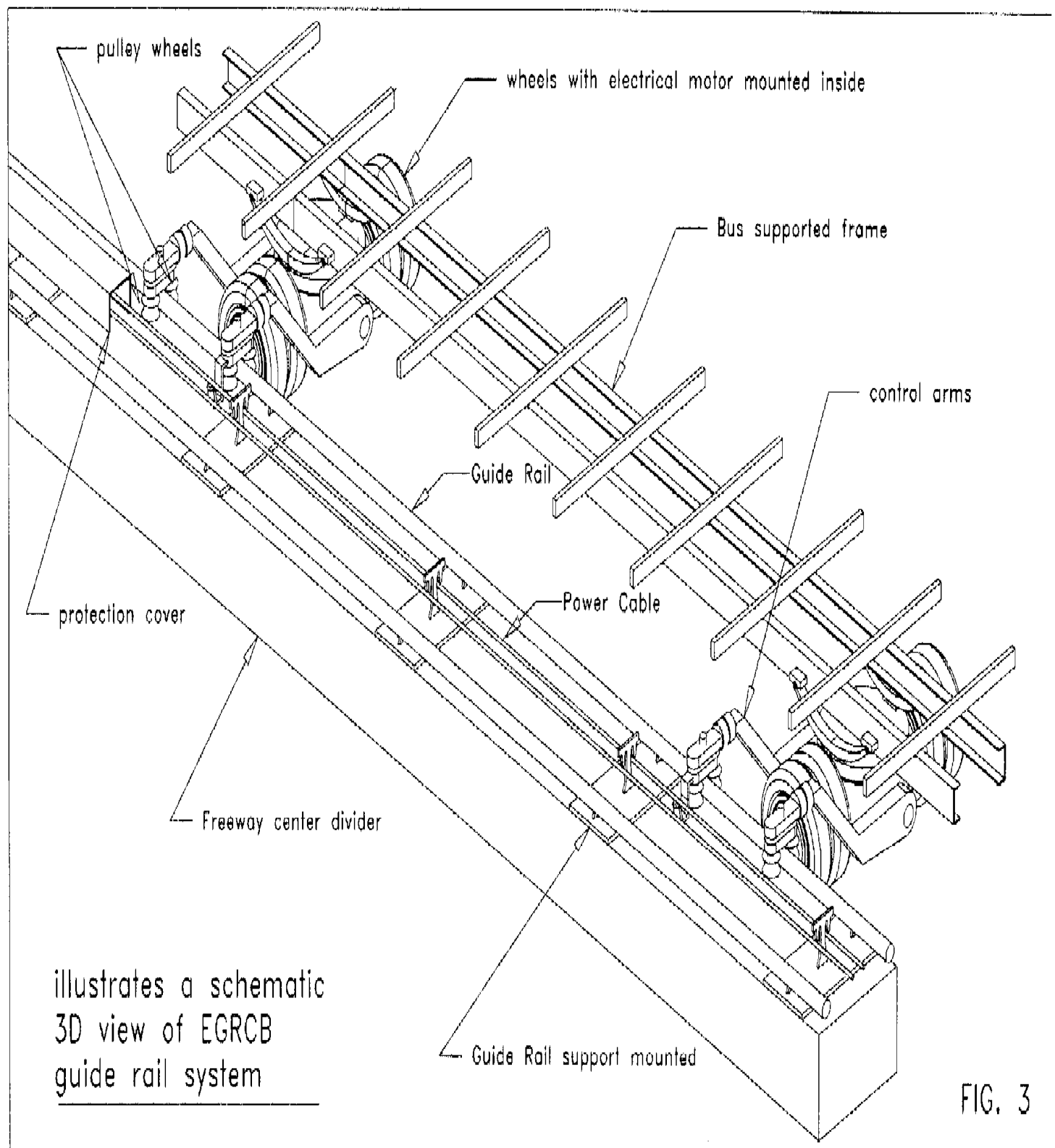


FIG. 3

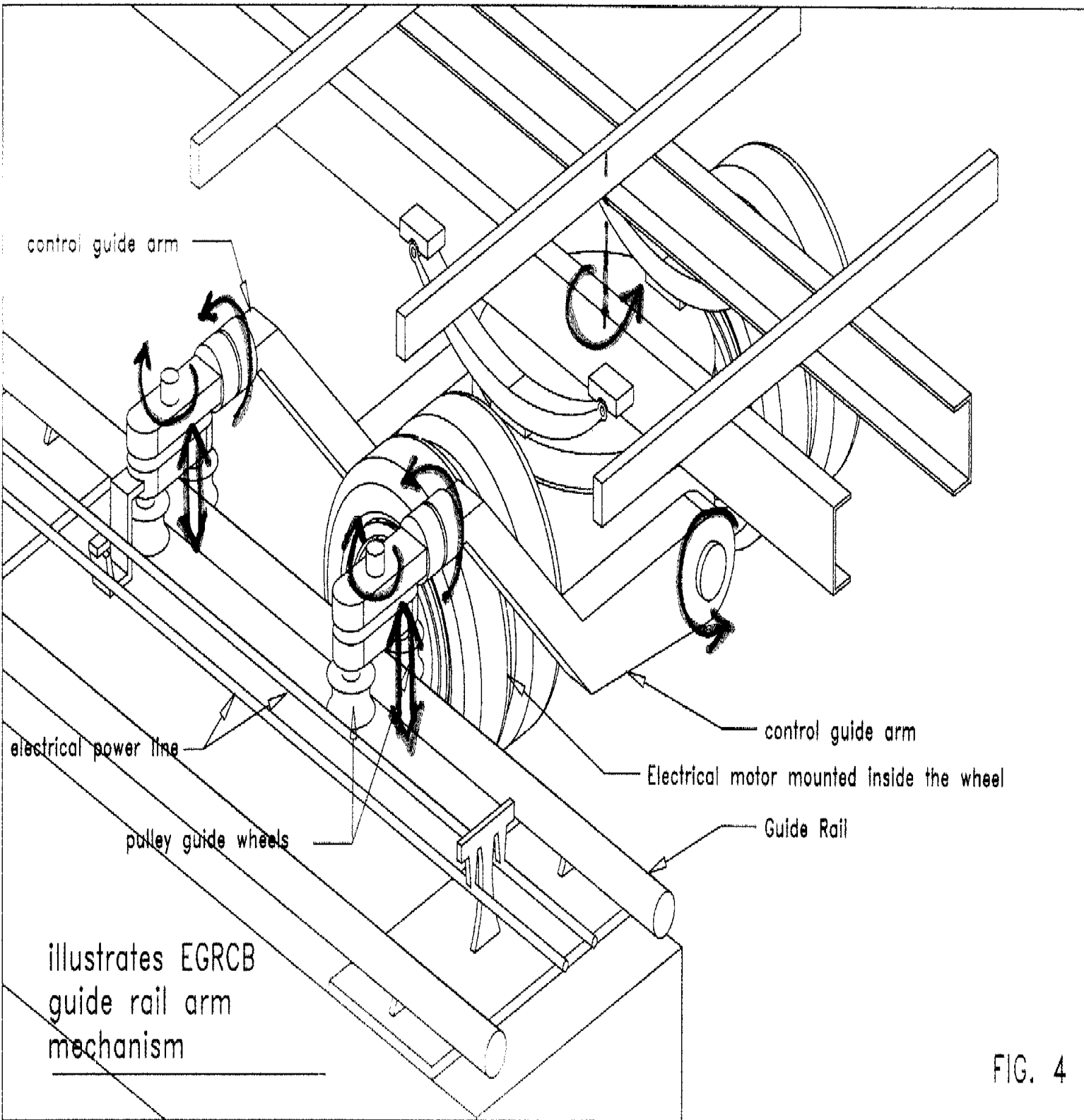
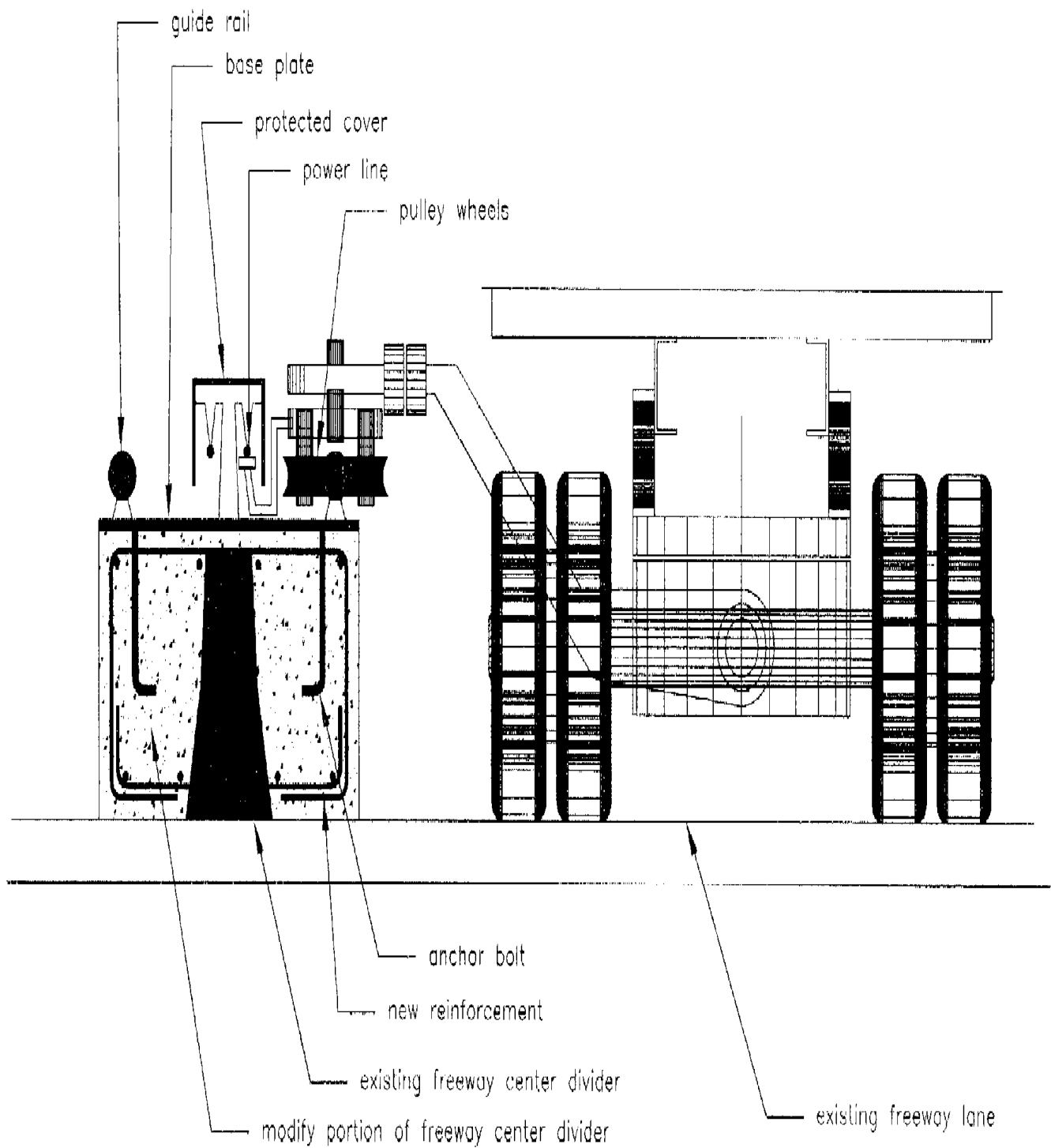
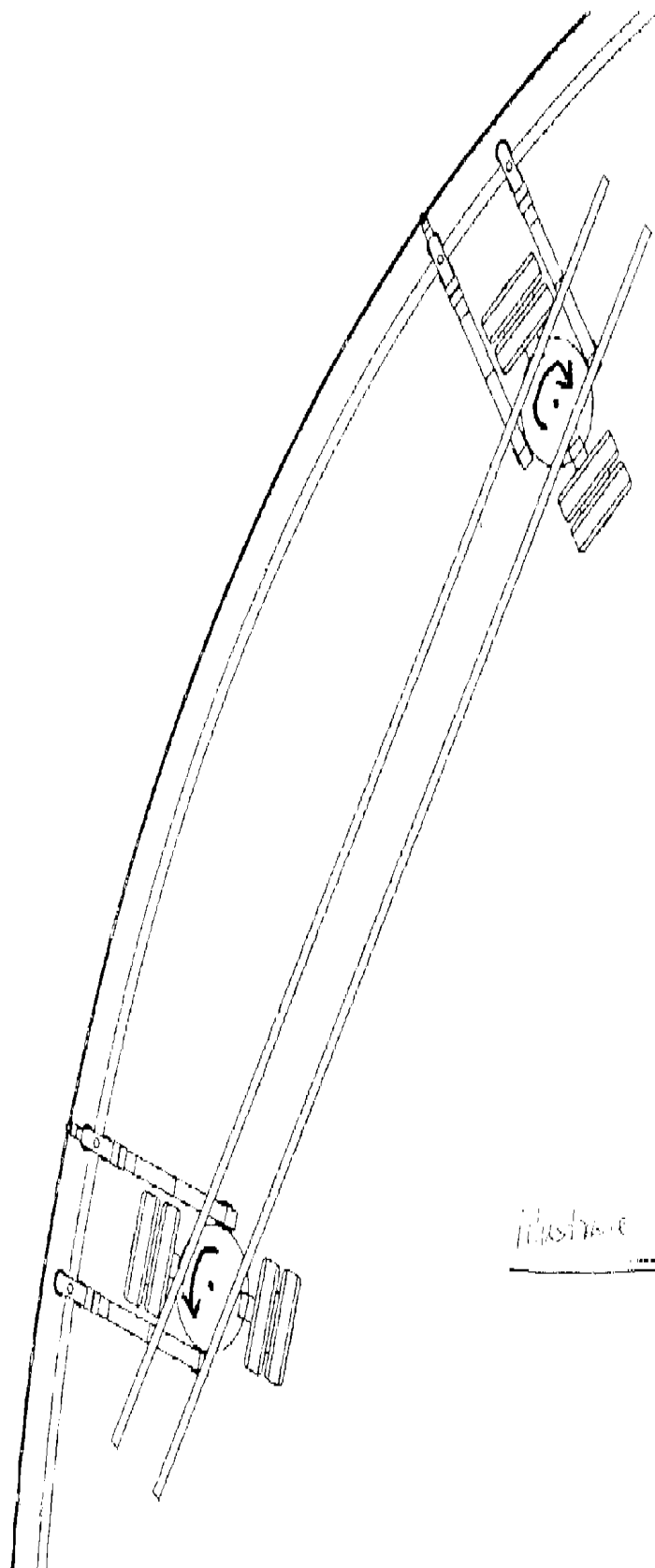


FIG. 4

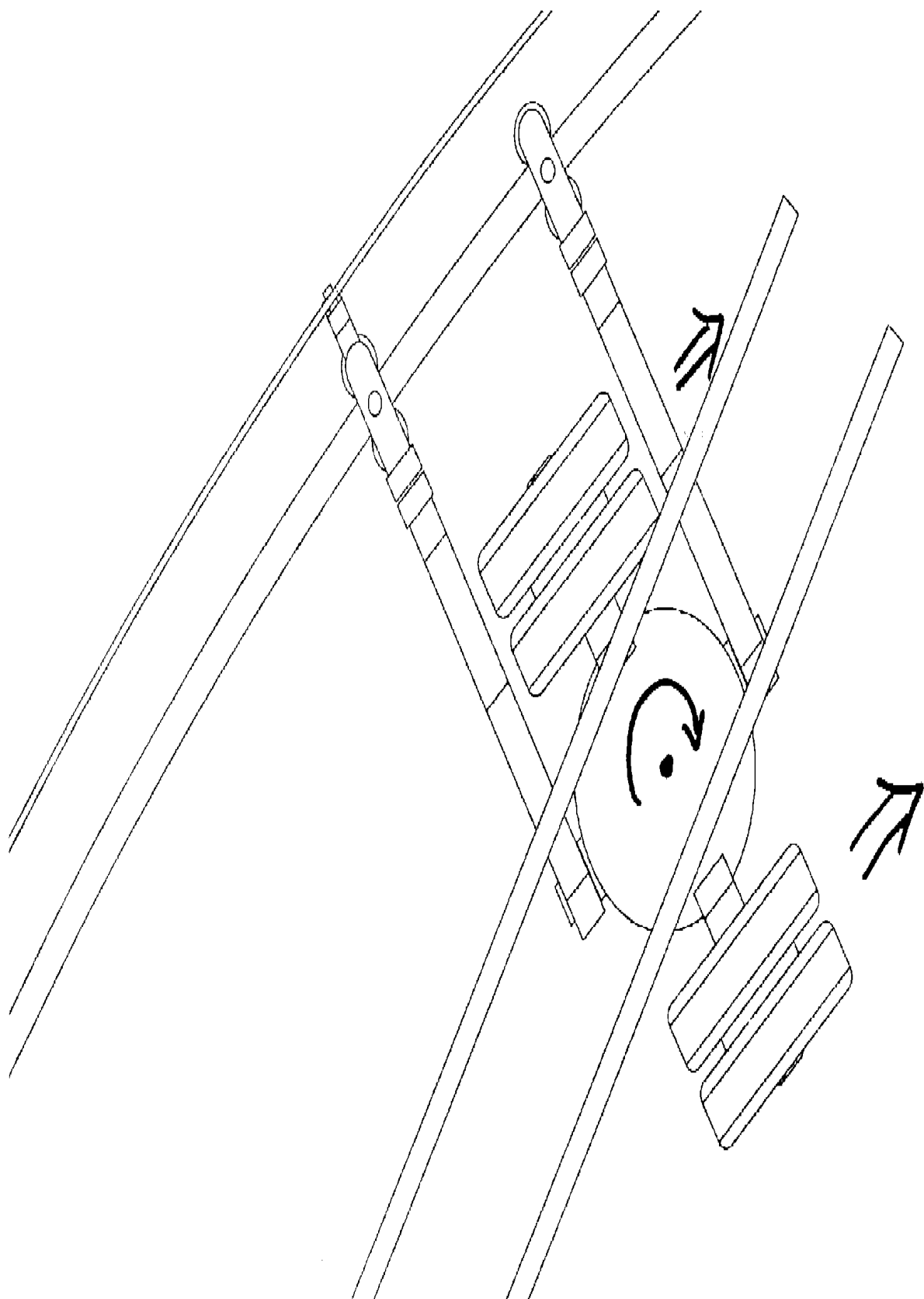


SECTION OF MODIFY FREEWAY CENTER DIVIDER

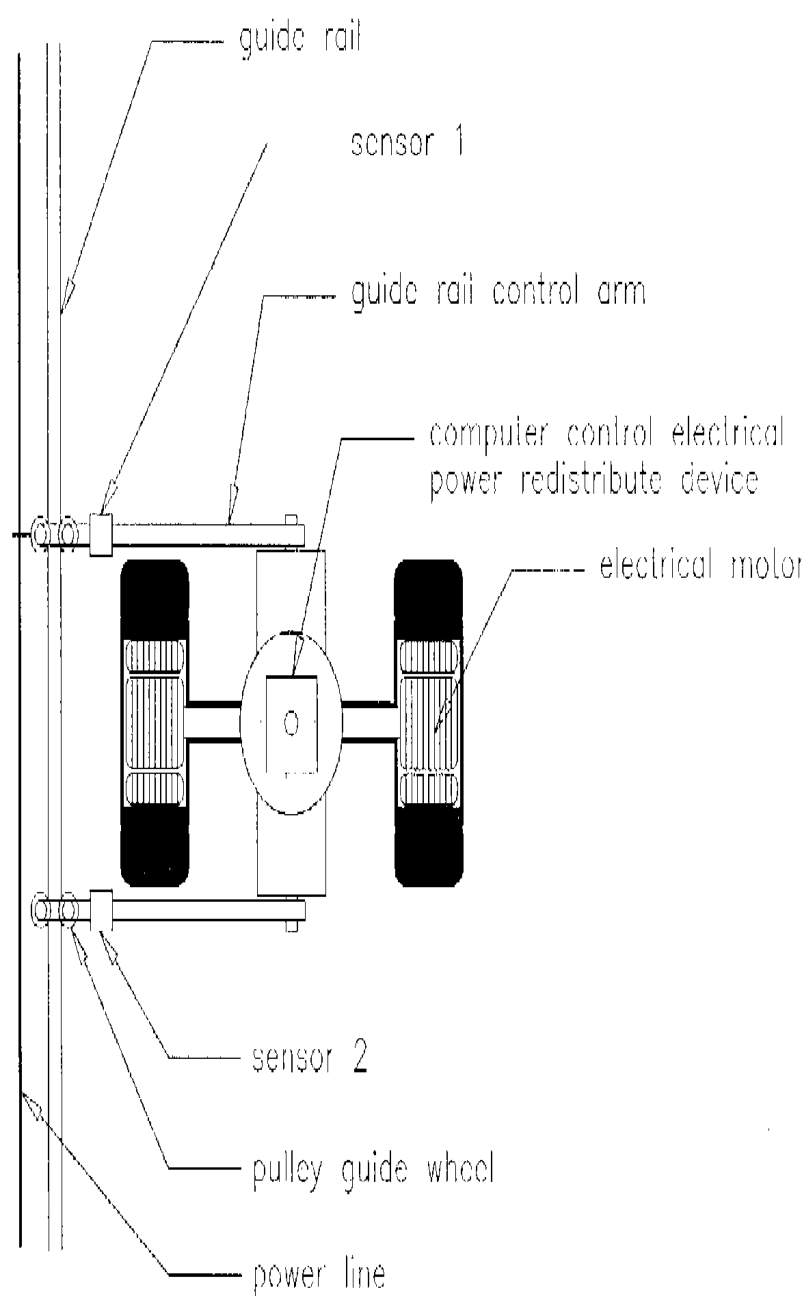


Illustrate how guide rails turn

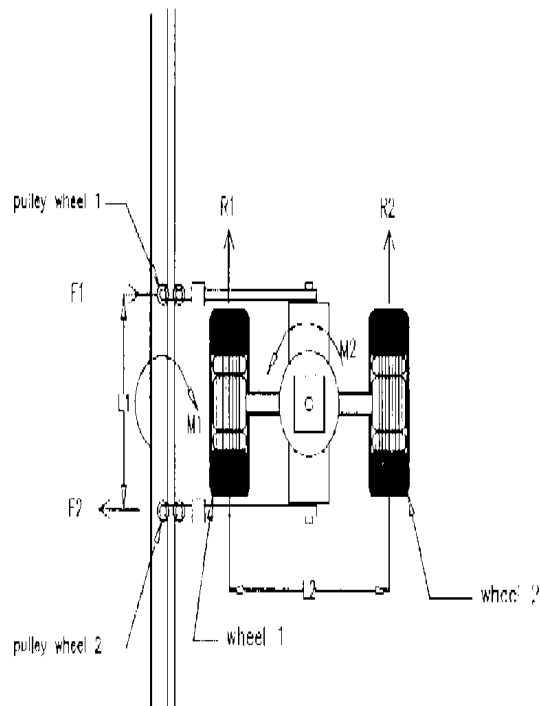
(figure 6)



(figure 7)



ECRCB control illustration diagram

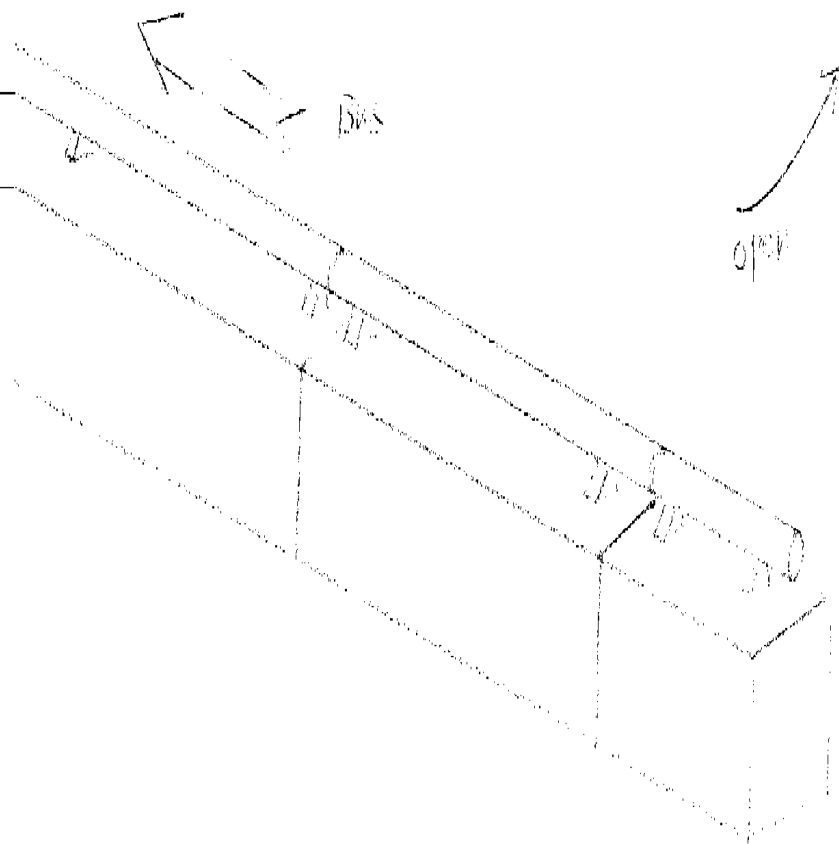
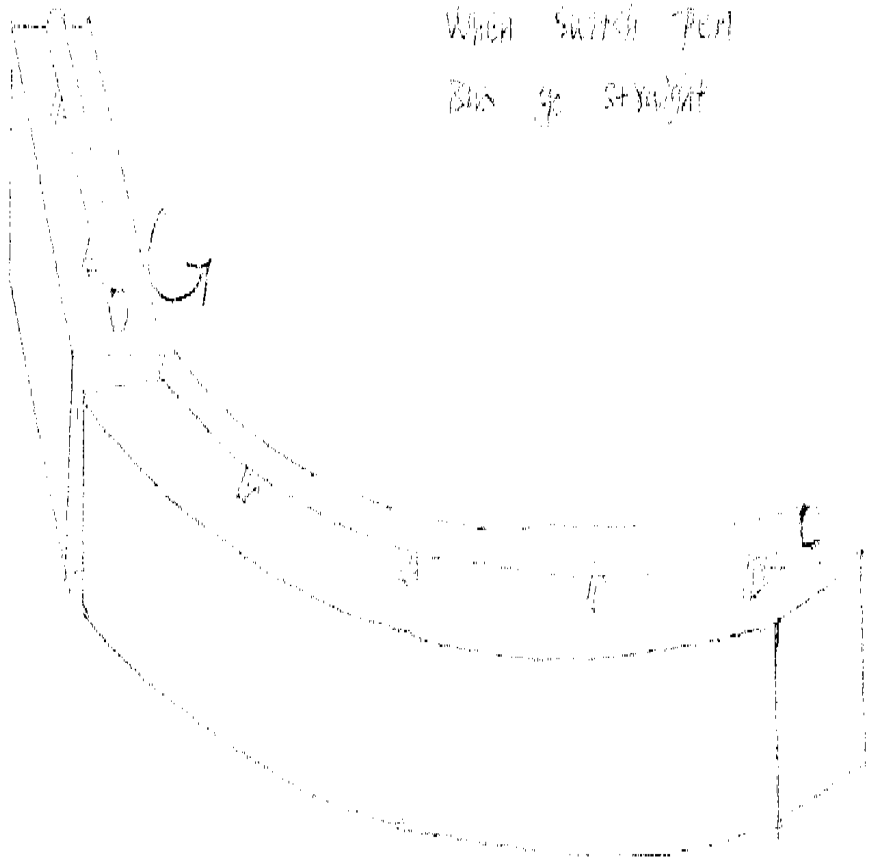


EGRCB control system illustration diagram

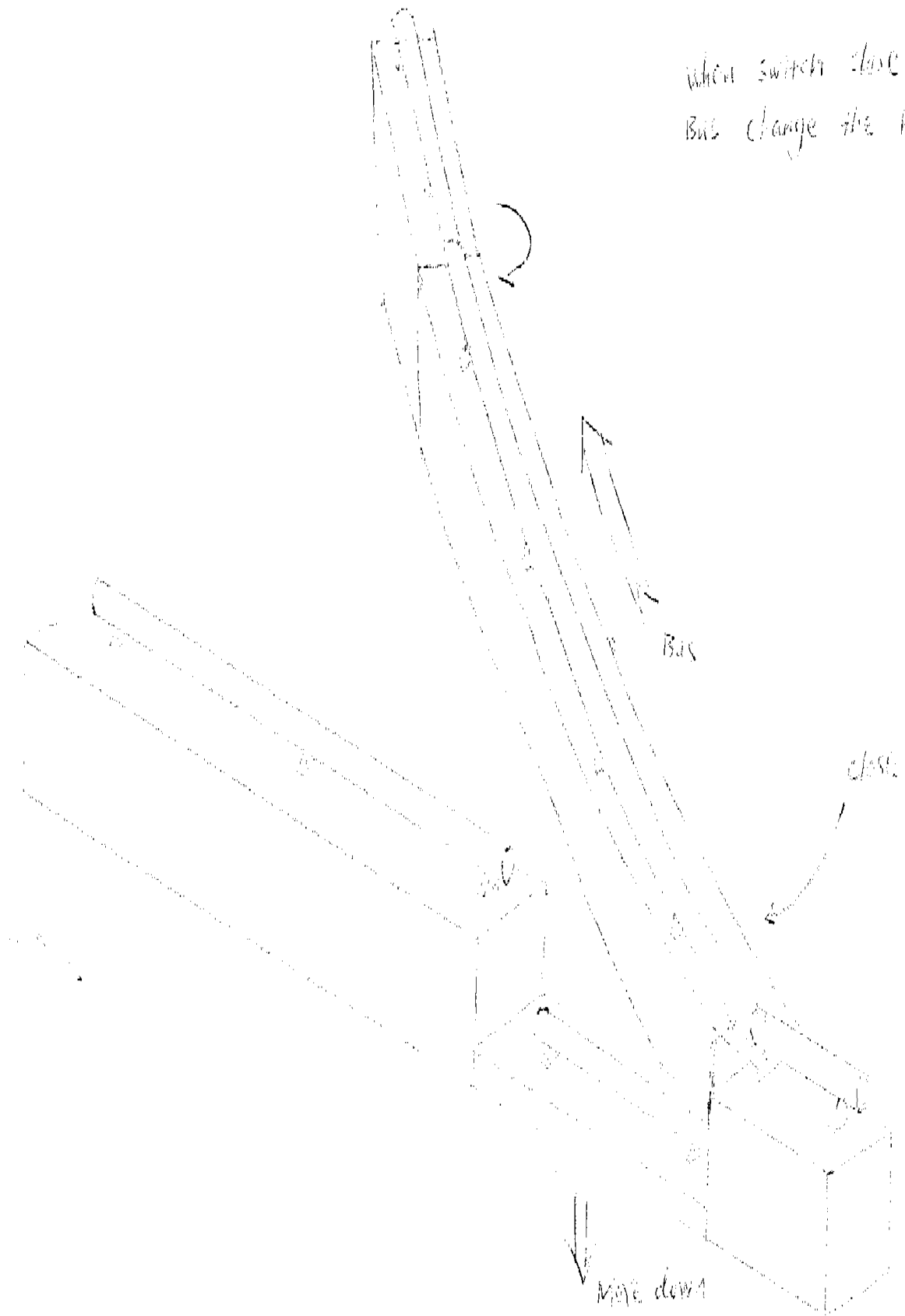
EGRCB control system working concept:

1. if the traction forces in wheel 1 equal to wheel 2 then the moment $M2 = (R2 - R1) * L2 = 0$
 since $M1 = M2 = 0$ and $M1 = (F2 - F1) * L1 = 0$, so $F1 = F2$ as the result car will go straight ahead.
 at this condition no matter how fast car accelerate it will always go straight.
2. if the traction force in wheel 1 is not equal to wheel 2 then $M2 = (R2 - R1) * L2$ so wheel axial has a tendency to turn. since the whole wheel set is connect to control arm which is restrain by pulley guide wheel, as result it will generate couper force $F1$ & $F2$ to counter the moment $M2$.
 $M1$ has to equal to $M2$, so $(F2 - F1) * L1 = M1$, or $(F2 - F1) * L1 = (R2 - R1) * L2$, from this equation we can see the relationship between the $(F2 - F1)$ and $(R2 - R1)$. so we can make the $(L2 - L1) = 0$ by changing the traction forces in wheel 1 and wheel 2. to achieve this we can install a force sensor in control arms to monitor the $F1$ and $F2$, sensor will send these information to computer control power redistribute device, keeping the total output same just redistribute power in between the wheel 1 (motor 1) and wheel 2 (motor 2). through this process we automatic balance the traction in both wheels,
3. when guide rail start at curve section it will generate a unbalance forces in pulley wheel 1 and pulley wheel 2. this unbalance forces will create a moment $M1$, this moment will force the wheel set to rotate together with control arms as result the car will follow the guide rail. during this turn process sensor will still working as describe above by redistributing the power between two wheels it help the car to turn along with guide rail and minimize the force in guide rail.
4. to slow down or break the car the reverse process describe above will apply. this break system can proven the chain bus line buckling during the emergency stop which is very import for this application.

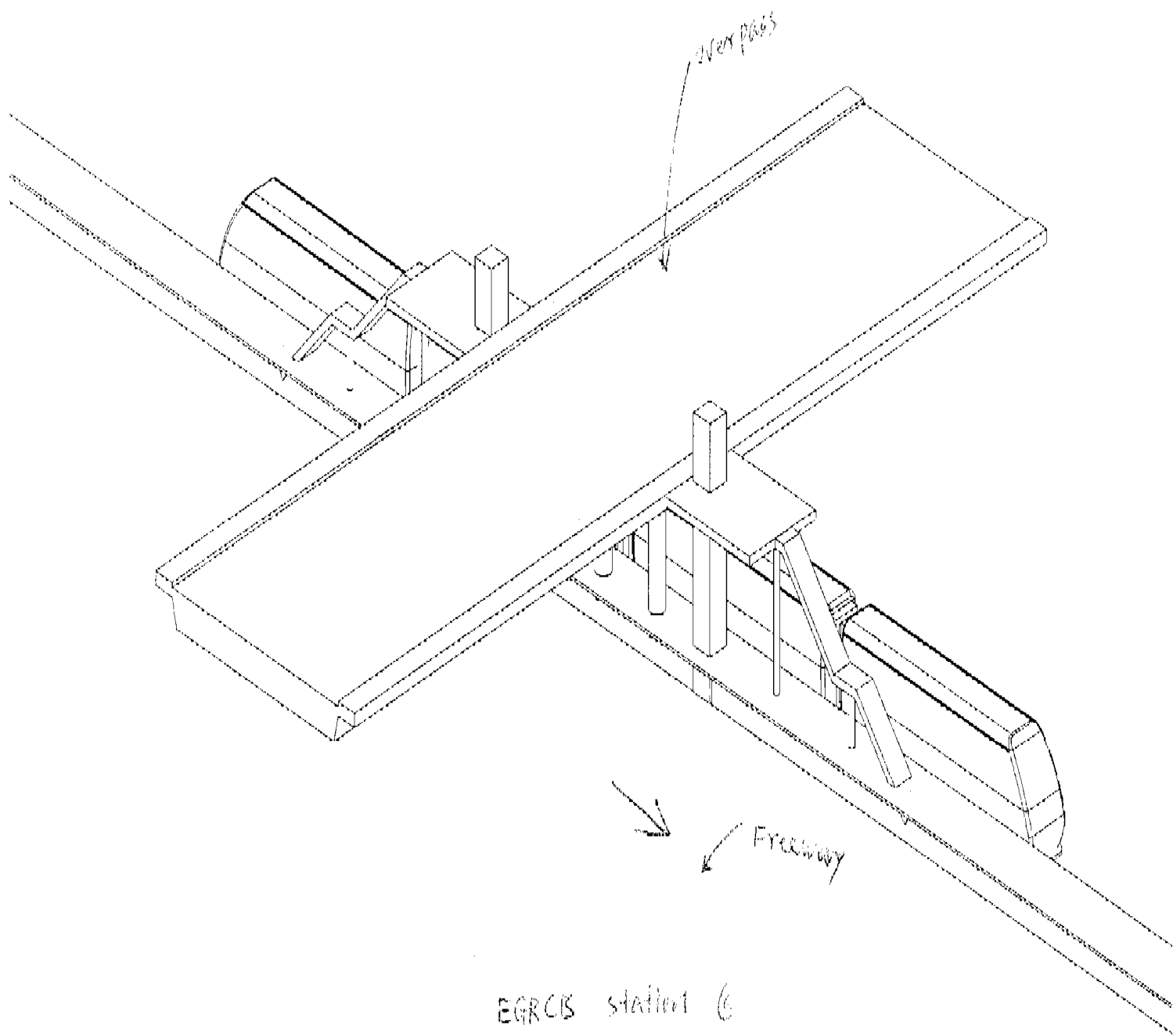
When switch open
Bus go straight



When switch close
Bus change the Rail

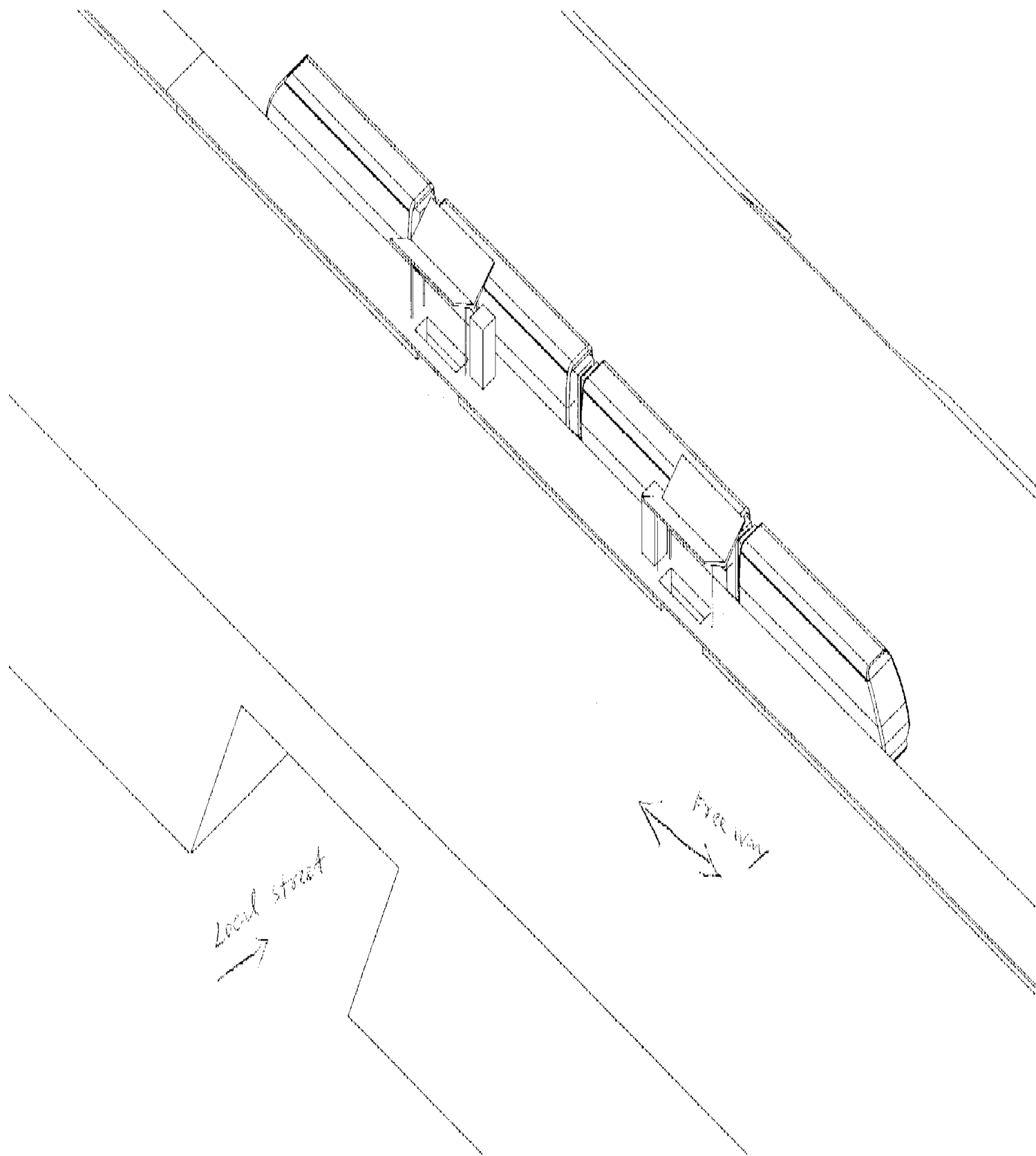


(figure 11)



EGRCS station 6
local street over pass the Freeway.

Figure 12



EGRCS Station @

Free way over pass the local street.

Figure 13